

Work Order ID 84659

May-30-12 3:51:52 PM

*Duplicate*

\*84659\*

~~U/R~~

Page 1

Item ID: D350-748-141TRN

Accept

\*N900040100\*

Setup Start \*NS1\*

Revision ID: U/R

Stop \*NS2\*

Item Name: Crosstube Turning Detail

Start Date: 17/05/2012 Start Qty: 1.00

\*1\*

Cust Item ID:

Required Date: 22/05/2012 Req'd Qty: 1.00

\*1\*

Customer:

Reference:

Approvals: Process Plan: *MLJ*

Date: *12/05/13* Tooling:

Date:

Run Start \*NR1\*

QC:

Date: SPC (Y/N):

Date:

Stop \*NR2\*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr

Revision Nbr

D350-748-141

F U/R

*OK of 12.05.13*

0.00

\*100\*

MORI SEIKI CNC LATHE LARGE

0.00

Mori Seiki

Memo

Mori Seiki CNC Lathe Large

1-Fill tube with sand & install plugs on both ends as per Folio FA648

2-Turn first side as per Folio FA648

3- File transition lines smooth.

FOLIO REV: *47*

DWG REV: *E*

110

QC1- Inspect dimensions to dimension sheet

0.00

\*110\*

QC

Memo

Quality Control

0.00

*1 Ø*

*mm.L  
12/06/13*

*1 Ø*

*mm.L  
12/06/13*

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

**\*84659\***

May-30-12 3:51:52 PM

**Accept**

**\*N900040100\***

Setup Start \*NS1\*

Stop \*NS2\*

**Start Date:** 17/05/2012    **Start Qty:** 1.00    **\*1\***

**Required Date:** 22/05/2012      **Req'd Qty:** 1.00      **\* 1 \***

**Cust Item ID:**

**Customer:**

**Reference:**

**Approvals:** \_\_\_\_\_ **Process Plan:** \_\_\_\_\_ **Date:** \_\_\_\_\_ **Tooling:** \_\_\_\_\_ **Date:** \_\_\_\_\_ **Run** **Start** **\*NR1\***

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop \*NR2\*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

120

0.00

**\*120\***

MORI SEIKI CNC LATHE LARGE

0.00

Mori Seiki

## Memo

Mori Seiki CNC Lathe Large

1-Turn second side as per Folio FA648  
2- File transition lines smooth.  
3-Scribe Part & Batch as per Dwg D350-748-141  
FOLIO REV: AA  
DWG REV: E

130

QC1- Inspect dimensions to dimension sheet	0.00
--	------

0.00

**\*130\***

QC

## Memo

0.00

## Quality Control

140

QC8- Inspect parts - second check	0.00
-----------------------------------	------

0.00

**\*140\***

QC

## Memo

0.00

## Quality Control

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Work Order ID 84659

**\*84659\***

Page 3

May-30-12 3:51:52 PM

Item ID: D350-748-141TRN

Accept

**\*N900040100\***

Setup Start

**\*NS1\***

Revision ID: U/R

Item Name: Crosstube Turning Detail

Stop

**\*NS2\***

Start Date: 17/05/2012 Start Qty: 1.00

**\*1\***

Cust Item ID:

Required Date: 22/05/2012 Req'd Qty: 1.00

**\*1\***

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start

**\*NR1\***

QC:

Date:

SPC (Y/N):

Date:

Stop

**\*NR2\***

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

150

0.00

**\*150\***

Large Fab

Crosstubes

Memo

0.00

Crosstubes

1-DRILL HOLES FOR HEAT TREAT USING DT9806(HOLES MUST BE  
ALIGNED ON SAME LINE ON BOTH CUFFS)

- 12/07/29

2-Grind machining marks

160

Outsource process - Heat Treat

0.00

**\*160\***

Outsource1

Memo

0.00

Outsource process - Heat Treat

Issue P/O: 17555  
Heat Treat to min 180 KSI As per Dwg D350-748-141  
(MIL-T-6736 OR AMS 2759-1C)  
Sand Blast tube after Heat Treat  
Possible Supplier: Vac Aero  
Ensure Certificate of Conformity is attached

110-07-27

P/T

W/O: 84659		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

See Park NCR  
12-1980

Part No: D350-748-141TRN PAR #: \_\_\_\_\_ Fault Category: Supplier NCR: Yes No DQA: 12/11/02 Date: 12/11/02  
 Resolution: \_\_\_\_\_ Disposition: RTV QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
12-09-21	160	Supplier did not sandblast on original supplier PO 17555	W 12-09-21	send for sandblasting to remove scale only Issue PO 17979 IMI	CY 12/09/21		W 12-09-21	DAS 16 11/11/02
				release + inspect 12/11/02				

NOTE: Date & initial all entries

# Work Order ID 84659

**\*84659\***

Page 4

May-30-12 3:51:52 PM

Item ID: D350-748-141TRN

Accept

**\*N900040100\***

Setup Start

**\*NS1\***

Revision ID: U/R

Item Name: Crosstube Turning Detail

Stop

**\*NS2\***

Start Date: 17/05/2012 Start Qty: 1.00

**\*1\***

Cust Item ID:

Required Date: 22/05/2012 Req'd Qty: 1.00

**\*1\***

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start

**\*NR1\***

QC:

Date:

SPC (Y/N):

Date:

Stop

**\*NR2\***

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

170

Receive & Inspect for Damage & Mat'l Certs

0.00

**\*170\***

Packaging

Memo

0.00

Packaging

Ensure certificate of conformaty is attached

1X  
142/2/29 ①

12-8-21

180

QC6- Inspect dimensions to drawing

0.00

**\*180\***

QC

Memo

0.00

Quality Control

DAS 16  
9-8 12/12/29

190

Packaging

0.00

**\*190\***

Packaging

Memo

0.00

Packaging

Identify and stock in kanban rack  
Location: LG

JW 12-11-1

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



**Work Order ID 84659****\*84659\***

Page 5

May-30-12 3:51:52 PM

Item ID: D350-748-141TRN

Accept

**\*N900040100\***Setup Start **\*NS1\***

Revision ID: U/R

Item Name: Crosstube Turning Detail

Stop **\*NS2\***

Start Date: 17/05/2012 Start Qty: 1.00

**\*1\***

Cust Item ID:

Required Date: 22/05/2012 Req'd Qty: 1.00

**\*1\***

Customer:

Reference:

Approvals: Process Plan:

Date:

Tooling:

Date:

Run Start **\*NR1\***

QC:

Date:

SPC (Y/N):

Date:

Stop **\*NR2\***Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run Hours

Tool ID

Tool #

Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

200

QC21- Final Inspection - Work Order Release

0.00

**\*200\***

QC

Memo

0.00

Quality Control

12/10/13

11-10-30

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Picklist Print

May-30-12 3:51:56 PM

Page 1

Work Order ID: 84659

\*84659\*

Parent Item: D350-748-141TRN

\*D350-748-141TRN\*

Parent Item Name: Crosstube Turning Detail

Start Date: 17/05/2012

Required Date: 22/05/2012

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP Rev:A New Issue 08-03-06 DD verified by:ec  
 IPP Rev B Removed polish 08.04.02 EC verified by : DD  
 IPP Rev C Remove LPS-3 08.06.23 EC verified by DD IPP Rev C  
 11.02.24 as per dwg rev.F DD verf: JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D6015-125		Manufactured	No			110	Each	38.0000	1	1			

\*D6015-125\*

Crosstube Material

\*\*

Location

Loc Qty

Loc Code

HALL

38

61380

4

72511

34

1

KC 12-6-11

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

<b>DART AEROSPACE LTD</b>	<b>Work Order:</b> 04659
<b>Description:</b> Crosstube Assembly (AS350/355 High Fwd)	<b>Part Number:</b> D350-748-141
<b>Inspection Dwg:</b> D350-748-141 <b>Rev:</b> F	<b>Page 1 of 1</b>

### FIRST-ARTICLE INSPECTION CHECKLIST

Inspection Sheet	Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
SIDE A	2.240	+0.005/-0.000	2.241	✓		vern	CWC-08
	2.180	+0.005/-0.000	2.180	✓			
	2.180	+0.005/-0.000	2.184	✓			
	2.237	+0.005/-0.000	2.242	✓			
	2.272	+0.005/-0.000	2.277	✓			
	2.306	+0.005/-0.000	2.310	✓			
	2.339	+0.007/-0.000	2.340	✓			
	2.339	+0.007/-0.000	2.346	✓			
	0.062	+/-0.010	0.062	✓		vern	CWC-08
	4.26	+/-0.030	4.26	✓		"	
	R0.063	+/-0.010	0.063	✓		RG	
	R0.50	+/-0.030	0.500	✓		"	
	2.240	+0.005/-0.000	2.240	✓		vern	CWC-08
	2.180	+0.005/-0.000	2.181	✓			
SIDE B	2.180	+0.005/-0.000	2.183	✓			
	2.237	+0.005/-0.000	2.240	✓			
	2.272	+0.005/-0.000	2.276	✓			
	2.306	+0.005/-0.000	2.310	✓			
	2.339	+0.007/-0.000	2.345	✓			
	2.339	+0.007/-0.000	2.346	✓			
	0.062	+/-0.010	0.062	✓		vern	CWC-08
	4.26	+/-0.030	4.26	✓		"	
	R0.063	+/-0.010	0.063	✓		RG	
	R0.50	+/-0.030	0.500	✓		"	
	110.27	+/-0.060	110.27	✓		TAPE	L6-25

<b>Measured by:</b> KC/nnm	<b>Audited by:</b> DP	<b>Preliminary Approval:</b>
<b>Date:</b> 12-6-11	<b>Date:</b> 12-6-20	<b>Date:</b>

Rev	Date	Change	Revised by	Approved
A	06.11.09	New Issue (P/O D350-748-101)	KJ/JLM	
B	07.10.24	Dwg Rev updated	KJ/EC/DD	
C	11.01.20	Dwg Rev updated	KJ	
D	11.07.26	Tolerance revised for 2.339 dimensions	KJ	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

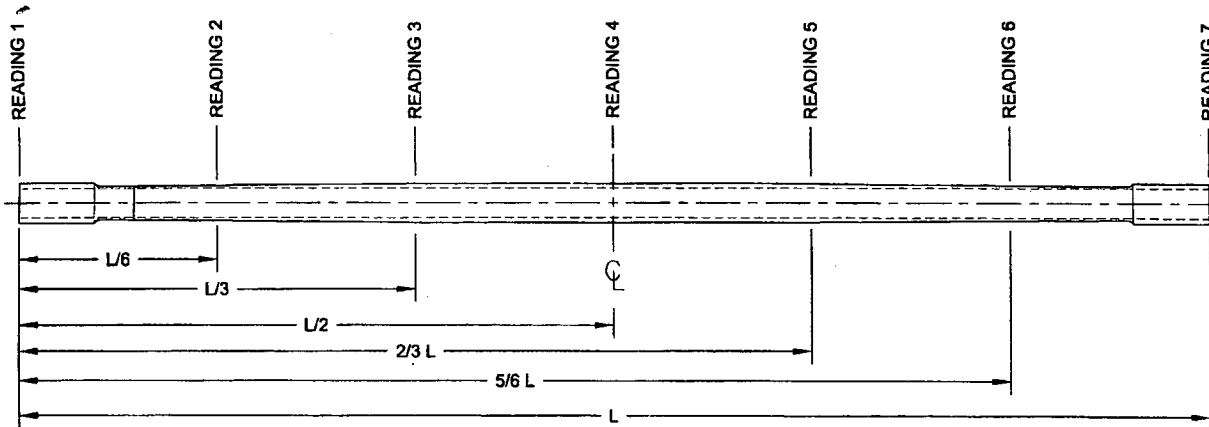
Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

<b>DART AEROSPACE LTD</b>		<b>Work Order:</b>	
<b>Description:</b> Crosstube Assembly (AS350/355 High Fwd)		<b>Part Number:</b>	<b>D350-748-141</b>
<b>Inspection Dwg:</b> D350-748-141 <b>Rev:</b> F		<b>Page 2 of 2</b>	

### WALL THICKNESS MEASUREMENT



Location	WALL THICKNESS MEASUREMENT (IN)				Deviation $\Delta w$ (max-min)	TOLERANCE
	w1	w2	w3	w4		
READING 1 L= 0"	.133	.135	.114	.117	.018	0.030"
READING 2 L= 11	.113	.108	.100	.104	.008	
READING 3 L= 23	.153	.158	.139	.132	.026	
READING 4 L= 55	.173	.182	.179	.171	.011	
READING 5 L= 23	.152	.153	.143	.139	.014	
READING 6 L= 11	.108	.109	.107	.104	.009	
READING 7 L= cuff	.132	.126	.119	.122	.013	

#### Calibration Result

Actual Block Thickness: \_\_\_\_\_

Sitescan 250 Measured Thickness: \_\_\_\_\_

<b>Measured by:</b> <i>WML</i>
<b>Date:</b> <i>12/07/11</i>

<b>Audited by:</b> <i>[Signature]</i>
<b>Date:</b> <i>12-6-20</i>

<b>Preliminary Approval:</b>
<b>Date:</b>

Rev	Date	Change	Revised by	Approved
A	06.11.09	New Issue (P/O D350-748-101)	KJ/JLM	
B	07.10.24	Dwg Rev updated	KJ/EC/DD	
C	11.01.20	Dwg Rev updated	KJ	
D	11.07.26	Tolerance revised for 2.339 dimensions	KJ	
E	12.06.04	Wall thickness form added	KJ	<i>[Signature]</i>





Item	Qty -141	Part Number	Description
1	X	D350-748-141	CROSSTUBE ASSEMBLY (AS 350/355 HI FWD)
2	1	D6015-125	CROSSTUBE (OR D6017-115)
3	2	D3502-1	SUPPORT
4	2	D2856-400-710	ABRASION STRIP
5	1	AELS-1032-225	INSERT
6	1	NAS1149D0363J	WASHER (OR AN960JD10)
7	2	MS21920-20	CLAMP (PER DART SPEC. M-MS21920-20)
8	1	MS27039-1-10	SCREW

# GENERAL NOTES:

- 1) MATERIAL: MANUFACTURED FROM D6015-125 OR D6017-115  
FINISHED LENGTH = 110.270±0.06
- 2) FINISH: MAGNETIC PARTICLE INSPECT PER DART QSI 038 4.2  
CADMIUM PLATE PER AMS-QQ-P-416B, CLASS 1, TYPE II  
PRIME INSIDE AND OUTSIDE PER DART QSI 005 4.2  
PAINT OUTSIDE PER DART QSI 005 4.2
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED.
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX.
- 6) IDENTIFICATION: DART PART NUMBER "D350-748-141" AND BATCH NUMBER ON INSIDE OF CUFF  
PER DART QSI 044 6.4 (VIBRATING STYLUS)
- 7) WEIGHT: 30.45 lbs
- 8) PART IS SYMMETRIC ABOUT CENTERLINE, EXCEPT FOR Ø0.297 HOLE.
- 9) BLEND OUT ALL EDGES FROM MACHINING LONGITUDINALLY, TRANSITION SHOULD BE SMOOTH.  
NOTE: ALL HOLES ARE DRILLED AFTER BENDING.
- 10) BEND PROGRESSIVELY WITH A MINIMUM OF 7 PASSES. MAXIMUM TUBE FLATTENING DUE TO BENDING IS 6% BASED ON O.D.
- 11) HEAT TREAT TO MIN. 180 KSI PER MIL-T-6736 OR AMS 2759-1C AFTER TURNING. ACCEPTABLE TO VERIFY TENSILE STRENGTH BY HARDNESS TEST PER ASTM E18 TO 40-45 HRC.
- 12) INSTALL D2856-400-710 ABRASION STRIPS WITH A GAP ON BOTTOM SIDE OF CROSSTUBE, CENTERED OPPOSITE D3502-1 SUPPORT, PER QSI 035.
- 13) EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE SURFACE OF THE TUBE. THE OUTSIDE SURFACE MUST BE SMOOTH AND FREE FROM SURFACE DEFECTS SUCH AS SCRATCHES, NICKS, OR DENTS. DEFECTS UP TO 0.005" MAY BE BLENDED OUT LONGITUDINALLY. CIRCUMFERENTIAL GRIND MARKS ARE UNACCEPTABLE. WHEN DRILLING HOLES EXTREME CARE MUST BE TAKEN AND CAREFUL DEBURRING PERFORMED TO ENSURE A CLEAN HOLE WITH NO CRACKING/CHIPPING/GROOVES.
- 14) TORQUE CLAMPS 60 TO 80 IN.-LB. ENSURE AT LEAST 1.5 THREADS SHOWING IN SAFETY AND THAT NUT HAS NOT BOTTOMED-OUT AFTER TORQUING.
- 15) MAX TWIST AFTER BENDING: WITH XTUBE LAYED FLAT ON SURFACE, THE DIFFERENCE BETWEEN CUFF HEIGHTS FROM THE SURFACE MAY BE NO LARGER THAN 0.25 (ZN C1-3).

SHOP COPY  
RETURN TO  
ENGINEERING  
UNCONTROLLED COPY  
SUBJECT TO AMENDMENT

WITHOUT NOTICE  
WORK ORDER

NO. 84659 M2J  
12105131

UNDER REVIEW

RELEASED  
2011-01-18

F	ADD HRC TEST OPTION (B8-1) PER PAR 09-040, ADD TWIST LIMIT (A8-1, C1-3), ADD D6015-125 OPTION (C8-1), STOCK DIM NOW MACHINED (D1-4)	CP	10.11.23
E	REVISE GENERAL NOTES: UPDATE TO CURRENT ADD STANDARDS: RELOCATED FLAG #6 PER PAR 08-046 (ZN A6-3); TOLERANCES (ZN C6-3, D1-3)	RF	09.09.30
D	MAG. PARTICLE AND CAD PLATE AS MFD.	CP	06.10.31
C	ADD CAD PLATING	CP	06.08.14
B	ADD D6017-115 & PRIME AND PAINT	CP	06.06.30
A	NEW ISSUE	CP	06.03.31
REV.	DESCRIPTION	BY	DATE
DESIGN			
DRAWN			
CHECKED			
MFG. APPR.			
APPROVED			
DE APPR.			
DATE	10.11.23		

<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
DRAWING NO. D350-748-141	REV. F SHEET 1 OF 4
TITLE CROSSTUBE (AS 350/355 HI FWD)	SCALE NTS
COPYRIGHT © 2006 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR TRANSMITTED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

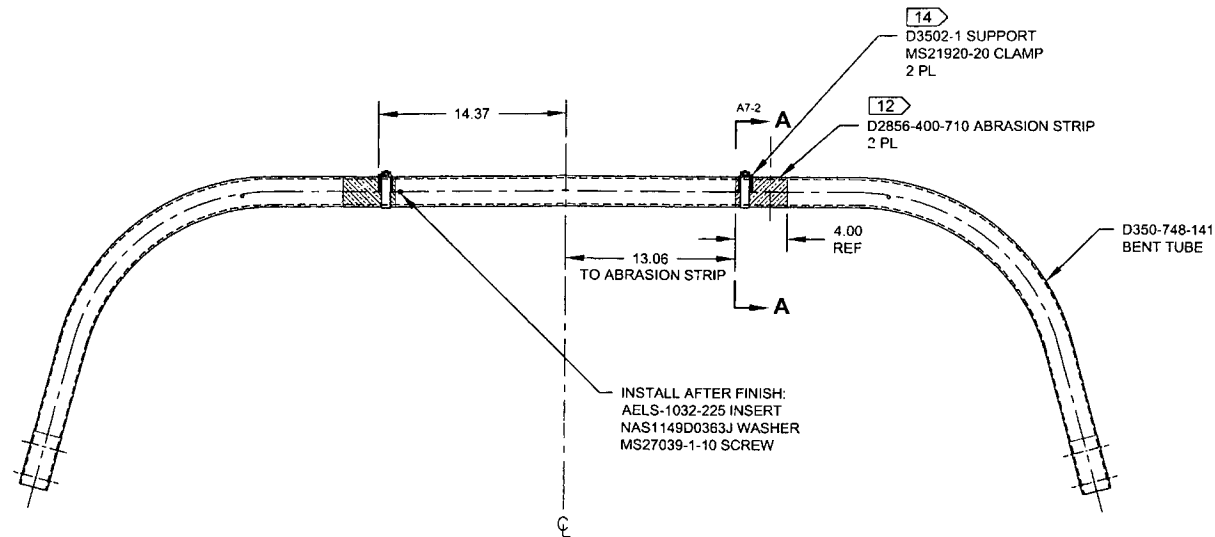
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

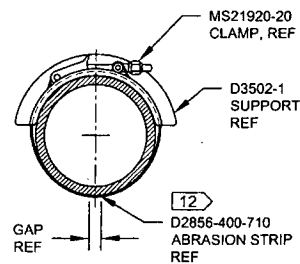
Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



**D350-748-141  
ASSEMBLY DETAIL**



**SECTION A-A** D4.2  
SCALE 4X

UNDER REVIEW

11.07.11

**RELEASED**  
2011-01-18

DESIGN	92	<b>DART AEROSPACE LTD</b>	
DRAWN	98	HAWKESBURY, ONTARIO, CANADA	
CHECKED	1	DRAWING NO.	REV. F
MFG. APPR.	1	D350-748-141	SHEET 2 OF 4
APPROVED	1	TITLE	SCALE
DE APPR.	1	CROSSTUBE (AS 350/355 HI FWD)	NTS
DATE	10.11.23	<small>COPYRIGHT © 2006 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE, OR COPIED OR REPRODUCED, IN ANY FORM, WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.</small>	

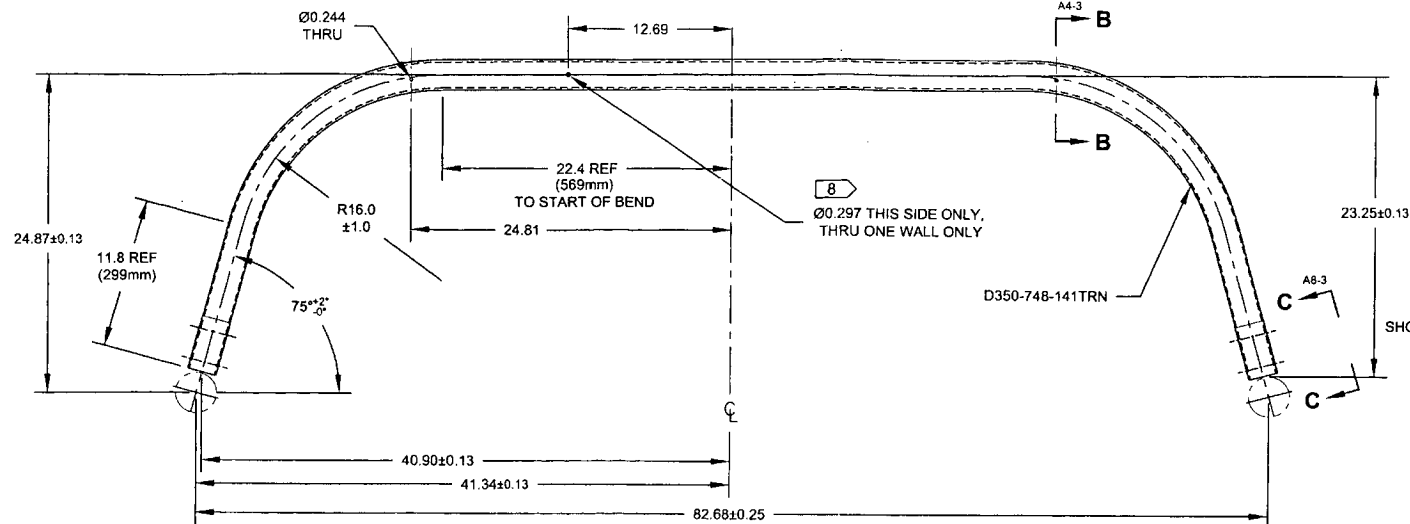
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

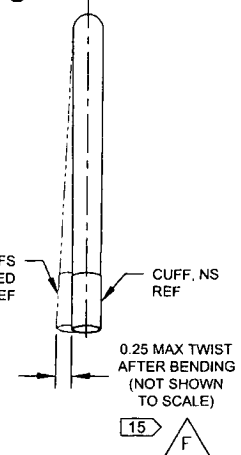
Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

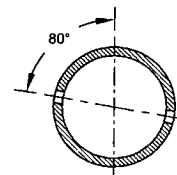
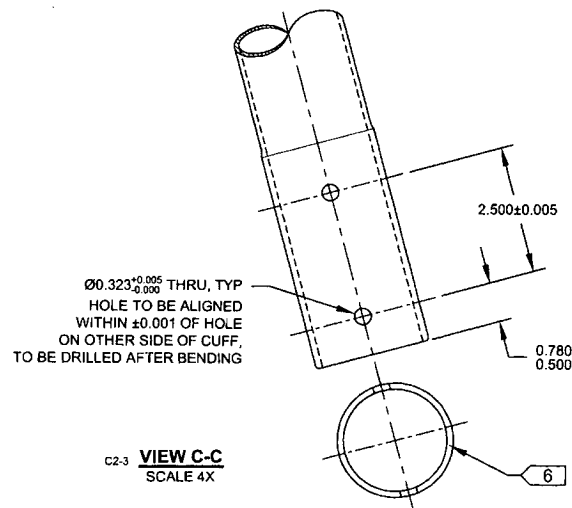
**NOTE:** Date & initial all entries



24659



**D350-748-141**  
**BENDING AND DRILLING DETAIL** 10



UNDER REVIEW

11.27.12

RELEASED  
2011-01-18

DESIGN	9P	<b>DART AEROSPACE LTD</b>	
DRAWN	9P	HAWKESBURY, ONTARIO, CANADA	
CHECKED	B	DRAWING NO.	REV. F
MFG. APPR.	2	D350-748-141	SHEET 3 OF 4
APPROVED	4	TITLE	SCALE
DE APPR.	4	CROSSTUBE (AS 350/355 HI FWD)	NTS
DATE	10.11.23	<small>COPYRIGHT © 2006 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSES OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD</small>	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

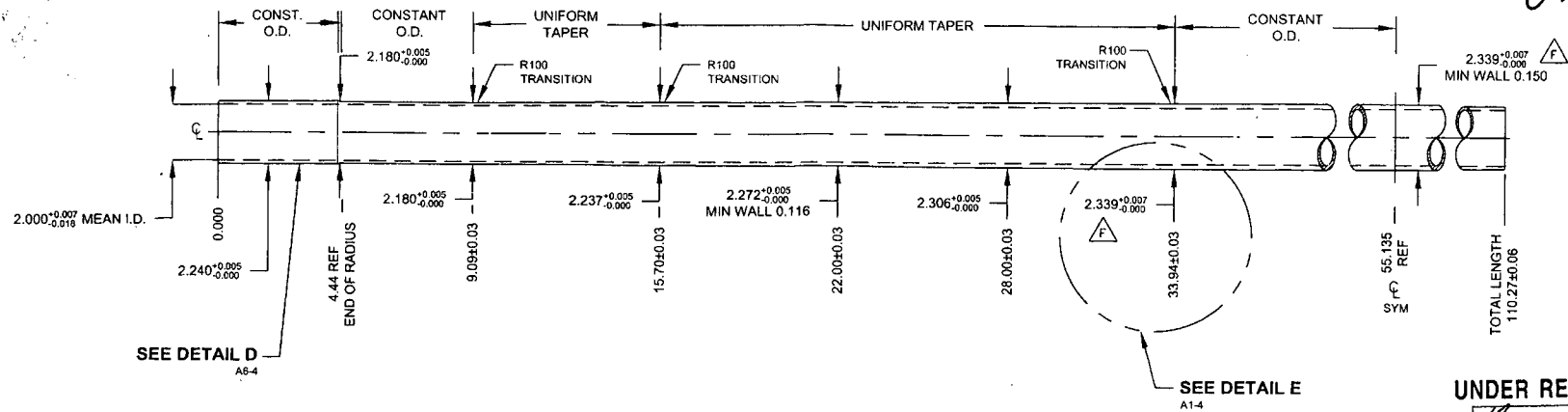
Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

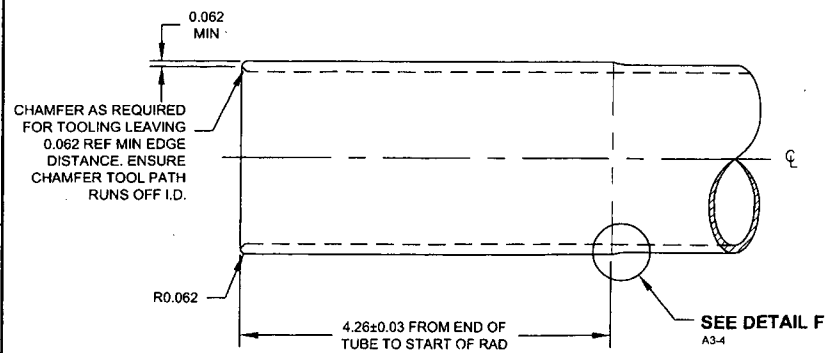
**NOTE:** Date & initial all entries

04659

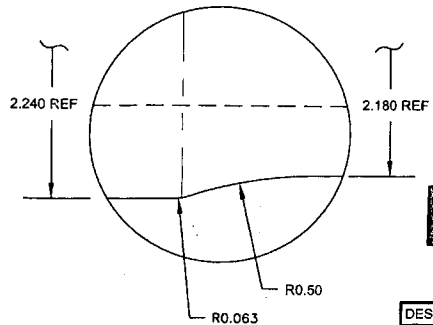


**D350-748-141TRN  
TURNING DETAIL**

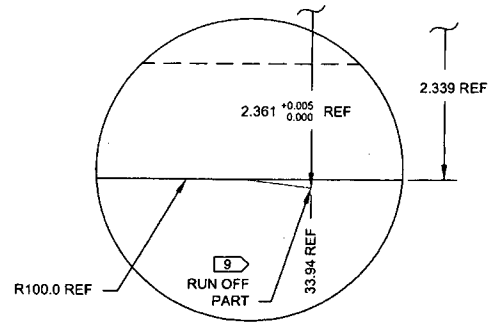
**UNDER REVIEW**  
11.07.12



**DETAIL D:  
CROSSTUBE CUFF** C7-4  
SCALE 3X



**DETAIL F:  
CUFF TRANSITION** A5-4  
NOT TO SCALE



**DETAIL E:  
TAPER RUN-OFF** C3-4  
NOT TO SCALE

**RELEASED**  
2011-01-18

DESIGN	40	<b>DART AEROSPACE LTD</b>	
DRAWN	40	HAWKESBURY, ONTARIO, CANADA	
CHECKED	13	DRAWING NO.	REV. F
MFG. APPR.	13	D350-748-141	SHEET 4 OF 4
APPROVED	13	TITLE	SCALE
DE APPR.	13	CROSSTUBE (AS 350/355 HI FWD)	NTS
DATE	10.11.23	<small>COPYRIGHT © 2006 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD</small>	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



**METLAB**  
**1000 E. MERMAID LANE**  
**WYNDMOOR, PA 19038**

**Packing I**  
Sales Order No.

Sales Order  
Aug 1,

Voice: 215-233-2600  
Fax: 215-233-5653

Sold To:  
DART AEROSPACE  
1270 ABERDEEN STREET  
HAWKESBURY, ON K6A 1K7

Ship To:  
DART AEROSPACE  
1270 ABERDEEN STREET  
HAWKESBURY, ON K6A 1K7

Customer ID	PO Number	Payment Terms
DARA	PO17555	Net 30 Days
Ship Via	Process	
R & L CARRIER	HT	

Quantity	Item	Description	Total Shipped	This Shipr
1.00	EACH	D350-748-241TRN HEAT TREAT TO MIN 180 KSI (MIL-T-6736 OR AMS 2759-IC) SANDBLAST AFTER HT		
1.00	EACH	D350-748-241TRN HEAT TREAT TO MIN 180 KSI (MIL-T-6736 OR AMS 2759-IC) SANDBLAST AFTER HT		
1.00	EACH	D350-748-241TRN HEAT TREAT TO MIN 180 KSI (MIL-T-6736 OR AMS 2759-IC) SANDBLAST AFTER HT		
1.00	EACH	D350-748-241TRN HEAT TREAT TO MIN 180 KSI (MIL-T-6736 OR AMS 2759-IC) SANDBLAST AFTER HT		
1.00	EACH	D350-748-241TRN HEAT TREAT TO MIN 180 KSI (MIL-T-6736 OR AMS 2759-IC) SANDBLAST AFTER HT		

COMMENTS

SHIPPED BY, SIGNATURE  
METLAB

DATE

RECEIVED BY, SIGNATURE  
DART AEROSPACE

DATE

**METLAB**  
**1000 E. MERMAID LANE**  
**WYNDMOOR, PA 19038**

**Packing I**

Sales Order Nu

Sales Order

Aug 1;

Voice: 215-233-2600  
Fax: 215-233-5653

Sold To:  
DART AEROSPACE  
1270 ABERDEEN STREET  
HAWKESBURY, ON K6A 1K7

Ship To:  
DART AEROSPACE  
1270 ABERDEEN STREET  
HAWKESBURY, ON K6A 1K7

Customer ID	PO Number	Payment Terms
DARA	PO17555	Net 30 Days
Ship Via	Process	
R & L CARRIER		

Quantity	Item	Description	Total Shipped	This Shipm
1.00	EACH	D350-748-241TRN HEAT TREAT TO MIN 180 KSI (MIL-T-6736 OR AMS 2759-IC) SANDBLAST AFTER HT		
1.00	EACH	D350-748-241TRN HEAT TREAT TO MIN 180 KSI (MIL-T-6736 OR AMS 2759-IC) SANDBLAST AFTER HT		
1.00	EACH	D350-748-241TRN HEAT TREAT TO MIN 180 KSI (MIL-T-6736 OR AMS 2759-IC) SANDBLAST AFTER HT		
1.00	EACH	D350-748-241TRN HEAT TREAT TO MIN 180 KSI (MIL-T-6736 OR AMS 2759-IC) SANDBLAST AFTER HT		
1.00	EACH	D350-748-241TRN HEAT TREAT TO MIN 180 KSI (MIL-T-6736 OR AMS 2759-IC) SANDBLAST AFTER HT		

COMMENTS

SHIPPED BY, SIGNATURE  
METLAB

DATE

RECEIVED BY, SIGNATURE  
DART AEROSPACE

DATE

DATE \_\_\_\_\_



1000 E. Mermaid La., Wyndmoor (Phila.) PA 19038-8093  
Tel. (215) 233-2600 Fax (215) 233-5653

# Invoice

Invoice Num

0114

Invoice D

Aug 16, 2012

Sold To:

DART AEROSPACE  
1270 ABERDEEN STREET  
HAWKESBURY, ON K6A 1K7

Ship To:

DART AEROSPACE  
1270 ABERDEEN STREET  
HAWKESBURY, ON K6A 1K7

Customer ID		Customer PO	Payment Terms	
DARA		PO17555	Net 30 Days	
Shop Order No.		Shipping Method	Ship Date	Due Date
73276		R & L CARRIER	8/16/12	9/15/12
Quantity	Item	Description	Unit Price	Extended Price
1	EACH	D350-748-241TRN HEAT TREAT TO MIN 180 KSI (MIL-T-6736 OR AMS 2759-IC) SANDBLAST AFTER HT	205.000	205.000
1	EACH	D350-748-241TRN HEAT TREAT TO MIN 180 KSI (MIL-T-6736 OR AMS 2759-IC) SANDBLAST AFTER HT	205.000	205.000
1	EACH	D350-748-241TRN HEAT TREAT TO MIN 180 KSI (MIL-T-6736 OR AMS 2759-IC) SANDBLAST AFTER HT	205.000	205.000
1	EACH	D350-748-241TRN HEAT TREAT TO MIN 180 KSI (MIL-T-6736 OR AMS 2759-IC) SANDBLAST AFTER HT	205.000	205.000
1	EACH	D350-748-241TRN HEAT TREAT TO MIN 180 KSI (MIL-T-6736 OR AMS 2759-IC) SANDBLAST AFTER HT	205.000	205.000
1	EACH	D350-748-241TRN HEAT TREAT TO MIN 180 KSI (MIL-T-6736 OR AMS 2759-IC) SANDBLAST AFTER HT	205.000	205.000

ANY DISCREPANCIES MUST BE REPORTED WITHIN 10 DAYS AFTER RECEIPT.

**We accept AMEX, Visa & Master Card**



Heat Treating and Metallurgical Consulting

Subtotal	Conti
Shipping/Handling	
Total Invoice Amount	Conti
Payment Received	
<b>TOTAL</b>	Conti

Visit our Web Site: <[www.thomasregister.com/metlab/](http://www.thomasregister.com/metlab/)>



1000 E. Mermaid La., Wyndmoor (Phila.) PA 19038-8093  
Tel. (215) 233-2600 Fax (215) 233-5653

# Invoice

Invoice Num

0114

Invoice D

Aug 16, 2

Sold To:

DART AEROSPACE  
1270 ABERDEEN STREET  
HAWKESBURY, ON K6A 1K7

Ship To:

DART AEROSPACE  
1270 ABERDEEN STREET  
HAWKESBURY, ON K6A 1K7

Customer ID		Customer PO	Payment Terms	
DARA		PO17555	Net 30 Days	
Shop Order No.		Shipping Method	Ship Date	Due Date
73276		R & L CARRIER	8/16/12	9/15/12
Quantity	Item	Description	Unit Price	Extensi
1	EACH	OR AMS 2759-IC) SANDBLAST AFTER HT D350-748-241TRN HEAT TREAT TO MIN 180 KSI (MIL-T-6736	205.000	20
1	EACH	OR AMS 2759-IC) SANDBLAST AFTER HT D350-748-241TRN HEAT TREAT TO MIN 180 KSI (MIL-T-6736	205.000	20
1	EACH	OR AMS 2759-IC) SANDBLAST AFTER HT D350-748-241TRN HEAT TREAT TO MIN 180 KSI (MIL-T-6736	205.000	20
1	EACH	OR AMS 2759-IC) SANDBLAST AFTER HT D350-748-241TRN HEAT TREAT TO MIN 180 KSI (MIL-T-6736	205.000	20
		250 POUNDS TOTAL		

ANY DISCREPANCIES MUST BE REPORTED WITHIN 10 DAYS AFTER RECEIPT.

**We accept AMEX, Visa & Master Card**



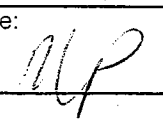
Heat Treating and Metallurgical Consulting

Subtotal	2,05
Shipping/Handling	
Total Invoice Amount	2,05
Payment Received	
<b>TOTAL</b>	<b>2,05</b>

Visit our Web Site: <[www.thomasregister.com/metlab/](http://www.thomasregister.com/metlab/)>

# North American Free Trade Agreement Certificate of Origin

Please print or type

1. Exporter's Name and Address:  <b>Metlab</b> <b>1000 E. Mermaid Lane</b> <b>Wyndmoor, PA 19038</b>		2. Blanket Period: (dd/mm/yyyy)  From: <b>01/01/2012</b> To: <b>31/12/2012</b>			
Tax Identification Number: <b>23-2973306</b>					
3. Producer's Name and Address:  <b>Metlab</b> <b>1000 E. Mermaid Lane</b> <b>Wyndmoor, PA 19038</b>		4. Importer's Name and Address:  <b>Dart Aerospace</b> <b>1270 Aberdeen Street</b> <b>Hawkesbury, ON K6A 1K7</b> <b>CANADA</b>			
Tax Identification Number: <b>23-2973306</b>		Tax Identification Number:			
5.  Description of Good(s)	6.  HS Tariff Classification Number	7.  Preference Criterion	8.  Producer	9.  Net Cost	10.  Country of Origin
<b>Heat Treatment Services</b>	<b>8483.401</b>	<b>C</b>	<b>Yes</b>	<b>No</b>	<b>USA</b>
11. I CERTIFY THAT:					
<ul style="list-style-type: none"> <li>* the Information on this document is true and accurate and I assume the responsibility for proving such representations. I understand that I am liable for any false statements or material omissions made on or in connection with this document;</li> <li>* I agree to maintain, and present upon request, documentation necessary to support this Certificate, and to inform, in writing, all persons to whom the Certificate was given of any changes that would affect the accuracy or validity of this Certificate;</li> <li>* the goods originated in the territory of one or more of the Parties, and comply with the origin requirements specified for those goods in the North American Free Trade Agreement, and unless specifically exempted in Article 411 or Annex 401, there has been no further production or any other operation outside the territories of the Parties; and</li> <li>* this Certificate consists of <u>One (1)</u> page, including all attachments.</li> </ul>					
Authorized Signature: 			Company: <b>Metlab</b>		
Name: <b>Mark Podob</b>			Title: <b>Vice President</b>		
Date: (mm/dd/yyyy) <b>8/16/2012</b>		Telephone: <b>215-233-2600</b>		Fax: <b>215-233-5653</b>	



Commercial Invoice:145

**Ship From:** Dart Aerospace Ltd.  
1270 Aberdeen Street  
Hawkesbury, ON K6A 1K7  
Canada  
Tel # 1.613.632.5200  
GST # RT101272607

**Ship To: METLAB**  
1000 E Mermaid LN  
Wyndmoor  
PA, 19038 US

**ATTN: Mark Podob**  
**PH#** 215 233 2600

**Date:** 27-Jul-12 **P.O. # 17555**

**Ship Via:** Day & Ross PPD **FOB:Origin**

Item	Part Number / Product Description	Tariff Class.	Quantity	Unit Price	Total
1	Crosstube D350-748-241	8803.20	10	\$ 1,250.00	\$ 12,500.00
2					
3					
4					

*All Prices are in US Dollars*

*All of the above parts were made in Canada unless otherwise indicated*  
**THIS IS A CUSTOMS INVOICE ONLY**

Sub Total \$12,500.00

Total \$12,500.00

**Amount Due: \$12,500.00**

Dart Aerospace Ltd.  
1270 Aberdeen Street  
Hawkesbury, ON K6A 1K7  
Canada  
Tel.: 1.613.632.5200  
Fax: 1.613.632.1185  
GST # RT101272607



1000 E. Mermaid Ln., Wyndmoor (Phila.) PA 19038-8093  
Tel. (215) 233-2600 Fax (215) 233-5653

## ORDER ACKNOWLEDGEMENT

E-MAILED TO: \_\_\_\_\_

FAXED TO: \_\_\_\_\_

613 632 1053

QF-4.7.2.2-01

Rev A 5/10/10

CUSTOMER: <i>Dart</i>	PO NUMBER: <i>P017555</i>
DATE MATERIAL RECEIVED: <i>8/1/2012</i>	METLAB QUOTE NUMBER: <i>N/A</i> Or, MINIMUM STD ORDER(CHECK) _____
ESTIMATED SHIP DATE: <i>8/15/12</i>	METLAB S.O. NUMBER: <i>73277</i>

THANK YOU FOR YOUR ORDER. WE WILL MAKE OUR BEST EFFORT TO SHIP YOUR ORDER ON OR BEFORE THE ESTIMATED SHIP DATE SHOWN ABOVE. IF YOU NEED TO CONTACT US REGARDING THIS ORDER, PLEASE REFERENCE THE METLAB S.O. NUMBER SHOWN ABOVE.

QUOTATION MISSING? ☒ OK TO PROCESS WITHOUT *PM*

PURCHASE ORDER MISSING? \_\_\_\_\_ OK TO START PROCESSING WITHOUT \_\_\_\_\_

NOTE THAT WE NEED THE FOLLOWING INFORMATION IN ORDER TO COMPLETE YOUR ORDER AND TO MEET THE PROMISED SHIP DATE:

TECHNICAL INFORMATION REQUIRED(LIST) : \_\_\_\_\_ ON HOLD : YES \_\_\_\_\_ NO \_\_\_\_\_

OTHER INFORMATION OR CLARIFICATION: \_\_\_\_\_ ON HOLD : YES \_\_\_\_\_ NO \_\_\_\_\_

RELEASED FOR PROCESSING BY: *PM* DATE: *8/8/12*

ACKNOWLEDGED BY: \_\_\_\_\_

TODAY'S DATE: \_\_\_\_\_

SHIPPED DATE: \_\_\_\_\_

THIS ORDER IS ACKNOWLEDGED WITH THE UNDERSTANDING THAT THE ABOVE PURCHASE ORDER IS IN ACCORDANCE WITH METLAB'S TERMS AND CONDITIONS OF SALE AS SUBMITTED AT THE TIME OF THE ABOVE QUOTATION.





# STRAIGHT BILL OF LADING - 1.866.DAY.ROSS

OTT 1983132 0



NIR R-500048-5

BILLER INIT. INITIALES PREPAREES A LA FACTURATION	OFF UNIT DECHARGE DU VEHICULE NO.	NO. OF PIECES QUANTITE DE MORCEAUX
	ON UNIT CHARGE DANS VEHICULE NO.	NO. OF PIECES QUANTITE DE MORCEAUX

DATE MONTH DAY YEAR 07 27 12	LEVEL OF SERVICE <input type="checkbox"/> GENERAL	C.O.D. AMOUNT CURRENCY: <input type="checkbox"/> CDN <input type="checkbox"/> U.S.	Pick Up Information Telephone Number: _____ Contact Name: _____ Ready Date & Time: _____ Closing Time: _____
<input type="checkbox"/> PRIVATE RESIDENCE PICK UP <input type="checkbox"/> PRIVATE RESIDENCE DELIVERY <input type="checkbox"/> PALLETS BEING RETURNED <input type="checkbox"/> HAZARDOUS GOODS* <input type="checkbox"/> APPOINTMENT DELIVERY (DATE/TIME)	<input type="checkbox"/> TAILGATE PICK UP <input type="checkbox"/> HEATED SERVICE <input type="checkbox"/> TRADE SHOW PU <input type="checkbox"/> INBOND	<input type="checkbox"/> TAILGATE DELIVERY <input type="checkbox"/> TEMPERATURE CONTROL (TL ONLY) <input type="checkbox"/> TRADE SHOW DELIVERY	
*this shipment contains dangerous goods as set out in the attached shipper's declaration			REQUESTED BY: <input type="checkbox"/> SHIPPER <input type="checkbox"/> CONSIGNEE <input type="checkbox"/> BILL TO <input type="checkbox"/> THIR EMAIL: _____

SHIPPER DAY & ROSS ACCT. NO. 038326 TEL NO. 6136325200 SHIPPER'S NAME PICK UP ADDRESS DART Aerospace 1270 Aberdeen St Hawkesbury ON K6A1K7 CITY PROV. COUNTRY POSTAL CODE	CONSIGNEE DAY & ROSS ACCT. NO. TEL NO. 215 233 CONSIGNEE'S NAME Mark Podob DELIVERY ADDRESS MetLab 1000 E. Mermaid Jan WYNDMOOR PA 1 CITY PROV. COUNTRY POSTAL CODE
---	---

METHOD OF PAYMENT <input checked="" type="checkbox"/> PREPAID <input type="checkbox"/> COLLECT <input type="checkbox"/> CASH IN ADVANCE AMOUNT _____ CURRENCY: <input type="checkbox"/> CDN <input type="checkbox"/> THIRD PARTY BILL TO ACCOUNT NUMBER _____ <input type="checkbox"/> VISA <input type="checkbox"/> M.C. <input type="checkbox"/> AMX EXPIRY DATE _____ CARD NO. _____	OTHER BILL TO PARTICULARS BILL TO: _____ BILL TO ADDRESS _____ _____ _____ GST: _____ CITY PROV. COUNTRY POSTAL CODE
--	--

SPOT QUOTE NO.	ROUTING OR SPECIAL INSTRUCTIONS	MAXIMUM LIABILITY OF \$2.00/LB OR \$4.41/KG COMPUTED ON THE TOTAL ACTUAL WEIGHT UNLESS DECLARED VALUATION STATES OTHERWISE. PLEASE SEE ADDITIONAL TERMS AND CONDITIONS ON REVERSE.		
NO. OF PCS.	DESCRIPTION OF ARTICLES AND SPECIAL MARKS	WEIGHT <input checked="" type="checkbox"/> LBS <input type="checkbox"/> KGS	DECLARED VALUE <input type="checkbox"/> CDN. <input type="checkbox"/> U.S.	DIMENSIONS
5	cardboard cartons	250		126x13x7
ALL USED HOUSEHOLD GOODS AND PERSONAL EFFECTS SHIPPED AT SHIPPER'S RISK OF DAMAGE				

The uniform TERMS OF CARRIAGE apply to this BILL OF LADING. (See Term and Condition No. 1)

NOTICE OF CLAIM must be submitted in writing within sixty (60) days of delivery. (See Term and Condition No. 2)

The carrier's maximum liability is limited by the TERM CONDITIONS of the Bill of Lading. (See Term and Condition No. 5)

SHIPPER'S REF. NO.	PO 17555
SHIPPER'S SIGNATURE	Brigitte Golden
PRINT	BRIGITTE Golden

PICK-UP DATE	07-27-2012	NO. OF PCS.	
DAY & ROSS DRIVER	Deni's	PURCHASE ORDER	
POWER NO.	270604	TRAILER NO.	16

011 JEN 1275



Dart Aerospace Ltd.  
1270 Aberdeen Street  
Hawkesbury, ON K6A 1K7  
Tel: 613 632 9577  
Fax: 613 632 1053

## PURCHASE ORDER

Purchase Order ID **PO17555**

Purchase Order Date 7/27/2012

PO Print Date 7/27/2012

Page Number 1 of 3

**Order From :**

VU-MET001

METLAB  
1000 E. MERMAID LANE  
WYNDMOOR, PA 19038  
USA

<b>Contact Name</b>		<b>Buyer</b>	Brigitte Golden
<b>Vendor Phone</b>	215-233-2600	<b>Requisition Nbr</b>	
<b>Vendor Fax</b>	215-233-5653	<b>Tax Resale Nbr</b>	10127-2607
<b>Vendor Account Nbr</b>		<b>Terms</b>	Net 30
		<b>Currency</b>	USD
		<b>FOB</b>	Destination-Collect

**Ship To :** DART AEROSPACE LTD 1270 ABERDEEN  
HAWKESBURY, ON K6A 1K7  
CANADA

Line Nbr	Reference Revision ID Vendor Part Number	Description/ Mfg ID	Req Date/ Taxable	Req Qty/ Unit of Measure	Ship Method	Unit Price	Extended Price
1	84674	D350-748-241TRN	10:40:00 AM Yes	✓ 1.00	Day & Ross ppd	\$205.0000	\$205.0
		<b>Special Inst:</b>	HEAT TREAT TO MIN 180 KSI (MIL-T-6736 OR AMS 2759-1C) SAND BALST TUBE AFTER HEAT TREAT CERTIFICATIONS				
2	84667	D350-748-241TRN	10:40:00 AM Yes	✓ 1.00	Day & Ross ppd	\$205.0000	\$205.0
		<b>Special Inst:</b>	SAME AS ABOVE				
3	84670	D350-748-241TRN	10:40:00 AM Yes	✓ 1.00	Day & Ross ppd	\$205.0000	\$205.0
		<b>Special Inst:</b>	SAME AS ABOVE				
4	84676	D350-748-241TRN	10:40:00 AM Yes	✓ 1.00	Day & Ross ppd	\$205.0000	\$205.0

**PO Instructions:**

CROSSTUBE WILL BE LEAVING THIS AFTERNOON WITH DAY&ROSS TRACKING #  
OTT19831320

No substitution or deviation without  
consent.

Certificate of Conformity or Material  
Certification required - YES NO

Change Nbr: 1

Change Date: 7/27/2012

SP 12-8-20



Dart Aerospace Ltd.  
1270 Aberdeen Street  
Hawkesbury, ON K6A 1K7  
Tel: 613 632 9577  
Fax: 613 632 1053

## PURCHASE ORDER

Purchase Order ID **PO17555**

Purchase Order Date 7/27/2012

PO Print Date 7/27/2012

Page Number 2 of 3

**Order From :**

VU-MET001

METLAB  
1000 E. MERMAID LANE  
WYNDMOOR, PA 19038  
USA

<b>Contact Name</b>		<b>Buyer</b>	Brigitte Golden
<b>Vendor Phone</b>	215-233-2600	<b>Requisition Nbr</b>	
<b>Vendor Fax</b>	215-233-5653	<b>Tax Resale Nbr</b>	10127-2607
<b>Vendor Account Nbr</b>		<b>Terms</b>	Net 30
		<b>Currency</b>	USD
		<b>FOB</b>	Destination-Collect

		<b>Special Inst:</b>	SAME AS ABOVE					
5	84659	D350-748-141TRN	10:40:00 AM	1.00	Day & Ross ppd	\$205.0000	\$205.0	
			Yes					
		<b>Special Inst:</b>	SAME AS ABOVE					
6	86271	D350-748-141TRN	10:40:00 AM	1.00	Day & Ross ppd	\$205.0000	\$205.0	
			Yes					
		<b>Special Inst:</b>	SAME AS ABOVE					
7	84666	D350-748-241TRN	10:40:00 AM	1.00	Day & Ross ppd	\$205.0000	\$205.0	
			Yes					
		<b>Special Inst:</b>	SAME AS ABOVE					
8	84660	D350-748-141TRN	10:40:00 AM	1.00	Day & Ross ppd	\$205.0000	\$205.0	
			Yes					
		<b>Special Inst:</b>	SAME AS ABOVE					
9	84675	D350-748-241TRN	10:40:00 AM	1.00	Day & Ross ppd	\$205.0000	\$205.0	
			Yes					
		<b>Special Inst:</b>	SAME AS ABOVE					
10	86266	D350-748-141TRN	10:40:00 AM	1.00	Day & Ross ppd	\$205.0000	\$205.0	
			Yes					

**PO Instructions:** CROSSTUBE WILL BE LEAVING THIS AFTERNOON WITH DAY&ROSS TRACKING # OTT19831320

No substitution or deviation without consent.  
Certificate of Conformity or Material Certification required - YES NO

Change Nbr: 1

Change Date: 7/27/2012



Dart Aerospace Ltd.  
1270 Aberdeen Street  
Hawkesbury, ON K6A 1K7  
Tel: 613 632 9577  
Fax: 613 632 1053

## PURCHASE ORDER

Purchase Order ID **PO17555**

Purchase Order Date 7/27/2012

PO Print Date 7/27/2012

Page Number 3 of 3

**Order From :**

VU-MET001

METLAB  
1000 E. MERMAID LANE  
WYNDMOOR, PA 19038  
USA

<b>Contact Name</b>		<b>Buyer</b>	Brigitte Golden
<b>Vendor Phone</b>	215-233-2600	<b>Requisition Nbr</b>	
<b>Vendor Fax</b>	215-233-5653	<b>Tax Resale Nbr</b>	10127-2607
<b>Vendor Account Nbr</b>		<b>Terms</b>	Net 30
		<b>Currency</b>	USD
		<b>FOB</b>	Destination-Collect

**Special Inst:** SAME AS ABOVE

**PO Total:** \$2,050.00

**PO Instructions:** CROSSTUBE WILL BE LEAVING THIS AFTERNOON WITH DAY&ROSS TRACKING #  
OTT19831320

No substitution or deviation without  
consent.

Certificate of Conformity or Material  
Certification required - YES NO

**Change Nbr:** 1

**Change Date:** 7/27/2012

## Brigitte Golden

---

**From:** Mark Podob <mpodob@metlabheattreat.com>  
**Sent:** Friday, July 27, 2012 11:21 AM  
**To:** Dan Krackovic; Doris Funches; Eugene Roberts  
**Cc:** Brigitte Golden  
**Subject:** FW: PO17555 from Dart  
**Attachments:** PO17555 METLAB.pdf

New P.O. from Dart Aerospace attached.  
Thanks.

Mark Podob  
Vice President, Marketing and Sales  
Metlab  
1000 E. Mermaid Lane  
Wyndmoor, PA 19038  
215-233-2600 Ext. 232  
(F) 215-233-5653  
[mpodob@metlabheattreat.com](mailto:mpodob@metlabheattreat.com)

This message and any attachments are intended for the individual or entity named above. If you are not the intended recipient, please do not forward, copy, print, use or disclose this communication to others; also please notify the sender replying to this message and then delete it from your system.

---

**From:** Brigitte Golden [<mailto:bgolden@dartaero.com>]  
**Sent:** Friday, July 27, 2012 11:19 AM  
**To:** Mark Podob  
**Cc:** 'Linda Lacelle'  
**Subject:** PO17555 from Dart

Please find attached the PO  
Thank You

---

**From:** Linda Lacelle [<mailto:llacelle@dartaero.com>]  
**Sent:** Thursday, July 26, 2012 2:36 PM  
**To:** [mpodob@metlabheattreat.com](mailto:mpodob@metlabheattreat.com)  
**Cc:** Brigitte Golden  
**Subject:** more tubes

Hi Mark,  
We will be shipping out 9 tubes tomorrow for heat treat. Another batch should follow end of next week. As always, I need these asap..  
Thx!

Linda Lacelle  
Production manager  
Dart Aerospace



